

Application No. 09/670,424  
Response to Office Action

Customer No. 01933

R E M A R K S

Reconsideration of this application, as amended, is respectfully requested.

The Examiner is thanked for conducting a telephone interview on October 26, 2005. As explained hereinbelow, the specification has been amended as approved by the Examiner to overcome the "new matter" objection and the "written description" rejection.

RE: THE SPECIFICATION

The specification has been amended to clarify that to input retrieval information, an item category title to be retrieved (that is, an item category title referring to a category of items to be retrieved), and a retrieving character string (keyword) are input, as well as to clarify that "column item" refers to "item category title" throughout the specification, as discussed in the telephone interview to overcome the "new matter" objection.

No new matter has been added, and it is respectfully requested that the amendments to the specification be approved and entered, and that the objection to the specification be withdrawn.

RE: THE REJECTION UNDER 35 USC 112

In view of the amendments to the specification described above, it is respectfully submitted that the specification

Application No. 09/670,424  
Response to Office Action

Customer No. 01933

clearly supports the recitation of "item category titles that identify respective categories of the data segments" (of the records in the database).

That is, the specification and drawings clearly describe and show item category titles, such as category titles "name," "state" and "age" that identify respective categories of data segments. Thus, as shown in Fig. 7, the category title "name" identifies data segments having name data (e.g. John, Chris, Michael) therein, while the category title "state" identifies data segments having state data (e.g. New York, Florida, Minnesota) therein. The category titles therefore identify respective categories of the data segments that make up the records of the database.

In view of the foregoing and as discussed in the interview on October 26, 2005, it is respectfully submitted that the claims fully comply with the requirements of 35 USC 112, and it is respectfully requested that the rejection thereunder be withdrawn.

RE: THE CLAIM AMENDMENTS

Claim 30 has been amended to incorporate the subject matter of claim 31. No new matter has been added, and it is respectfully requested that the amendment to claim 30 be approved and entered.

Application No. 09/670,424  
Response to Office Action

Customer No. 01933

RE: THE PRIOR ART REJECTION

Claims 30-42 were rejected under 35 USC 103 as being unpatentable over USP 5,963,642 ("Goldstein") in view of USP 5,915,025 ("Taguchi et al"). This rejection, however, is respectfully traversed.

Re: Claims 30, 40 and 41

According to the present invention as recited in each of independent claims 30, 40 and 41, a database is provided which includes a plurality of records, and each of the records includes a plurality of data segments identified by item category titles that identify respective categories of the data segments.

Thus, the database of the present invention as recited in claims 30, 40 and 41 includes records that, for example, are numbered as rows 1-9 in Fig. 7. Each record includes a plurality of data segments. For example, the data segments of record 3 in Fig. 7 are Michael, Minnesota, 65, 163, 27 and 101-202-3030. And each data segment has a category that is identified by an item category title. The item category titles are shown in the top (unnumbered) row of the table in Fig. 7. Thus, the data segment "Michael" of record/row 3 is in the category "name" that is identified by the item category title "name."

According to claim 30, 40 and 41, moreover, at least one of the item category titles is stored to specify that the data

Application No. 09/670,424  
Response to Office Action

Customer No. 01933

segments corresponding to the item category title as a target of a data search process. For example, name, state and/or age could be stored as targets of the data search. These categories which are frequently searched should be easily searchable and do not necessarily require the highest level of security.

The data segments of the at least one specified data segment group are encrypted using a corresponding column key. For example, every data segment within the "name" category would be encrypted with a same column key, if the "name" category were specified as an object of data search. For categories that are not specified as being objects of the data search, the data segments thereof are encrypted by a row key specific to the individual row. Thus, if "weight," "height," and "phone" are not specified as being objects of the data search, then in record/row 3 the data segments 65, 163 and 101-202-3030 are encrypted with a same row key corresponding to record/row 3. However, the data segments corresponding to the weight, height and phone categories in record/row 4 are encrypted using a row key that is different from the row key used to encrypt the data segments in these categories in row 3 (or in row 5). See Fig. 6, which shows that for any given record/row, the categories name, state and age are encrypted with a respective column key (i.e. the name category is encrypted with the key "apple" in every row, and the age category is encrypted with the key "lemon" in every